

**DRAFT SCREENING SITE INVESTIGATION  
FOR THE  
A. PEREZ AND SON DIVISION OF ABRAMS METAL COMPANY  
1429 NORTH 22<sup>ND</sup> STREET  
PHILADELPHIA, PENNSYLVANIA  
ECKEL SITE NUMBER 303**

Prepared for

U.S. Environmental Protection Agency Region 3  
Hazardous Site Cleanup Division  
1650 Arch Street  
Philadelphia, PA 19103

Prepared by

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Work Assignment No. 048-PAPA-03ZZ  
Project No. I4185.47502.0903

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## **1.0 INTRODUCTION**

Under Remedial Action Contract (RAC) No. 68-S7-3002, Work Assignment No. 048-PAPA-03ZZ, U.S. Environmental Protection Agency (EPA) Region 3 tasked Tetra Tech, Inc. (Tt), to assist EPA Region 3 in the assessment of properties suspected to have been former lead smelter foundries. Tt subcontracted completion of this work assignment to Tetra Tech EM Inc. (Tetra Tech).

Former lead smelter sites nationwide were identified in an April 2001 article published in the American Journal of Public Health by Eckel, and others (Eckel study) (Reference [Ref.] 1). The majority of these lead smelters operated prior to 1964 and closed before the current environmental regulations were instituted. As part of the Eckel study, soil samples were collected from several of the identified former lead smelter properties. Results from the analysis of these soil samples indicated that concentrations of lead exceeded EPA's recommended screening level for lead in residential soils. The results of the Eckel study indicate that the air disposition of lead into soils from the former smelter operations may present an ongoing public health concern due to exposure of residential populations, especially children, located in the vicinity of these former lead smelters, to soils containing elevated concentrations of lead (Refs. 1, 2, and 3).

The Eckel study identified 77 properties that may have been formerly used as lead smelters within EPA Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia). EPA Region 3 is currently investigating these 77 properties. The objective of EPA's investigation of these properties is to (1) determine the potential for lead-contaminated soil to be present at the former lead smelter site or nearby properties (2) identify any populations that may be at risk to exposure to this soil, and (3) determine if soil sampling is warranted at any of these sites or nearby properties.

The following activities were completed as part of the initial screening investigation of each of these former lead smelter sites: (1) verify the former lead smelter address listed in the Eckel study through historical Sanborn fire insurance maps, tax parcel information, and/or contacting local agencies, (2) determine if the site is listed in EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, (3) determine through census information and existing maps the number of schools, daycare centers or recreational parks that exist near the former lead smelter site, (4) determine the population residing within a 4-mile radius of the site, (5) conduct a windshield reconnaissance of the site and surrounding area to document the current land use, identify any exposed soil and verify the existence of any schools, daycare centers or parks in the immediate area, and (6) review all information acquired to determine if the collection and analysis of soil samples is warranted at the site or at any nearby property.

This report summarizes the findings of the tasks outlined above for the former lead smelter known as the A. Perez and Son Division of Abrams Metal Company (A. Perez and Son) facility located at 1429 North 22<sup>nd</sup> Street, Philadelphia, Pennsylvania, 19121. Each former smelter property was given a number in Eckel's study. The Eckel study number for this site is 303 (Ref. 1).

## **2.0 SITE LOCATION**

The former A. Perez and Son facility was located at 1429 North 22<sup>nd</sup> Street, Philadelphia, Pennsylvania, 19121. The geographic coordinates of the former A. Perez and Son facility are 39.976884° north latitude and 75.171012° west longitude on the Philadelphia, Pennsylvania Quadrangle, 7.5 minute series, United States Geological Survey topographic map (see Appendix A, Figure 1). The site is not currently listed in EPA's CERCLIS database (Ref. 4). An aerial photograph of the vicinity of the former lead smelter site has been included in Appendix A, Figure 2. This aerial photograph reveals the exposed soils and any identified areas of potential concern such as schools, daycare centers, or parks located within a half-mile radius of the site.

### **3.0 SITE OBSERVATIONS**

On December 12, 2005, Tetra Tech completed a non-sampling windshield reconnaissance of the A. Perez and Son site and surrounding area. A photographic record of the current site conditions is included in Appendix B. Figure 3, shows the current layout of the site and surrounding area as observed during Tetra Tech's site reconnaissance. The following observations were recorded:

- The former buildings located on site have been demolished. The subject property is currently a vacant lot. The property will be used to build residential properties as part of the Sharswood Townhouse Apartments. The site is located in a predominantly residential area of Philadelphia.
- Residential properties and vacant lots surround the subject property in all directions.
- Miller Memorial Baptist Church, which contains a school, is located one block north of the subject property on the northwest corner of Nassau Street and North 22<sup>nd</sup> Street.
- Exposed soil is present on numerous residential properties and vacant lots in the immediate vicinity.
- No daycare centers or parks were identified in the immediate vicinity of the subject property.

#### 4.0 POTENTIAL TARGETS

Potential targets identified that may be exposed to lead-contaminated soils remaining in the vicinity of the former A. Perez and Son site include the nearby residential population, children attending schools, and any workers that may be employed at or in the nearby vicinity of the site. The population within a 4-mile radius of the site is summarized in the table below (Ref. 5).

**Population within a Four-mile Radius of the Site**

<b>Distance Ring (miles)</b>	<b>Population (number of persons)</b>
0.0 to 0.25	2,847
0.25 to 0.5	12,258
0.5 to 1.0	48,026
1.0 to 2.0	123,039
2.0 to 3.0	223,064
3.0 to 4.0	329,103

Source: U.S. Department of Commerce. Landview V Environmental Mapping Software based on the Bureau of Census 2000 Population Data. December 6, 2005.

No schools, daycare centers, parks, or recreational areas have been identified in the area directly surrounding the site. No daycare facilities were identified within one-half mile of the site. Nine schools were identified within one-half mile of the subject property, including Reynolds Elementary School and Vaux Junior High School one-quarter mile west of the subject property. Meade School, Saint Elizabeth's School, and Kane School are approximately one-third mile from the subject property to the east, north, and west respectively. Morris School and Wagner School are approximately one-half mile from the subject property. Miller Memorial Baptist Church, which contains a school, is located one block north of the subject property on the northwest corner of Nassau Street and North 22<sup>nd</sup> Street. Girard College is approximately one-quarter mile south of the subject property. Several ball fields were identified within one-quarter mile of the site to the north and west.

## **5.0 FINDINGS AND RECOMMENDATIONS**

The site is located in a predominantly residential area of Philadelphia, Pennsylvania. Exposed soils were observed in the vicinity of the former location of the lead smelter. The former lead smelter is surrounded by residential properties; therefore, to determine if there is a threat to the residential population from elevated levels of lead in soils, it is recommended that soil samples be collected from nearby residential yards and analyzed for lead levels.

## REFERENCES

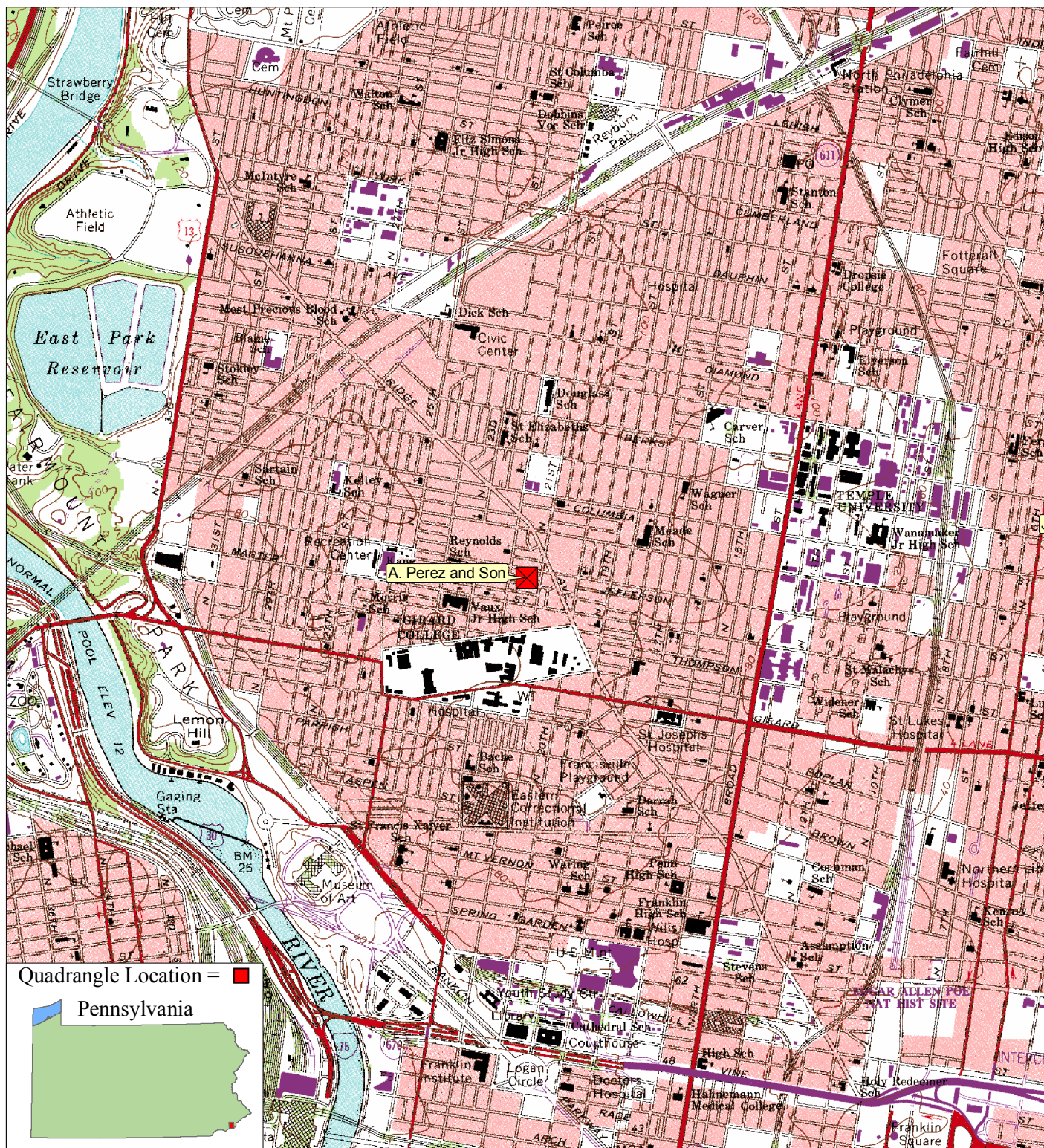
1. Eckel, W.P., Rabinowitz, M.B., Foster, G.D. American Journal of Public Health. "Discovering Unrecognized Lead-Smelting Sites by Historical Methods". April 2001.
2. Pennsylvania Department of Health. Suspected Former Lead Smelter Sites: A Potential Risk Factor for Childhood Lead Poisoning. August 2004.
3. U.S. Environmental Protection Agency (EPA). Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12. July 14, 1994.
4. U.S. EPA. Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) database. On-Line Address: <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>
5. U.S. Census Bureau. State and County Quick Facts. Accessed On-Line on December 6, 2005. On-Line Address: [quickfacts.census.gov/qfd/states/42.html](http://quickfacts.census.gov/qfd/states/42.html).



## **Appendix A**

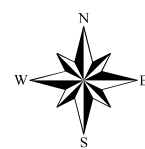
### **Figures**





0 0.25 0.5  
Miles  
Scale in Miles

A. Perez and Son  
1429 North 22nd Street  
Philadelphia, Pennsylvania  
Eckel Site No. 303



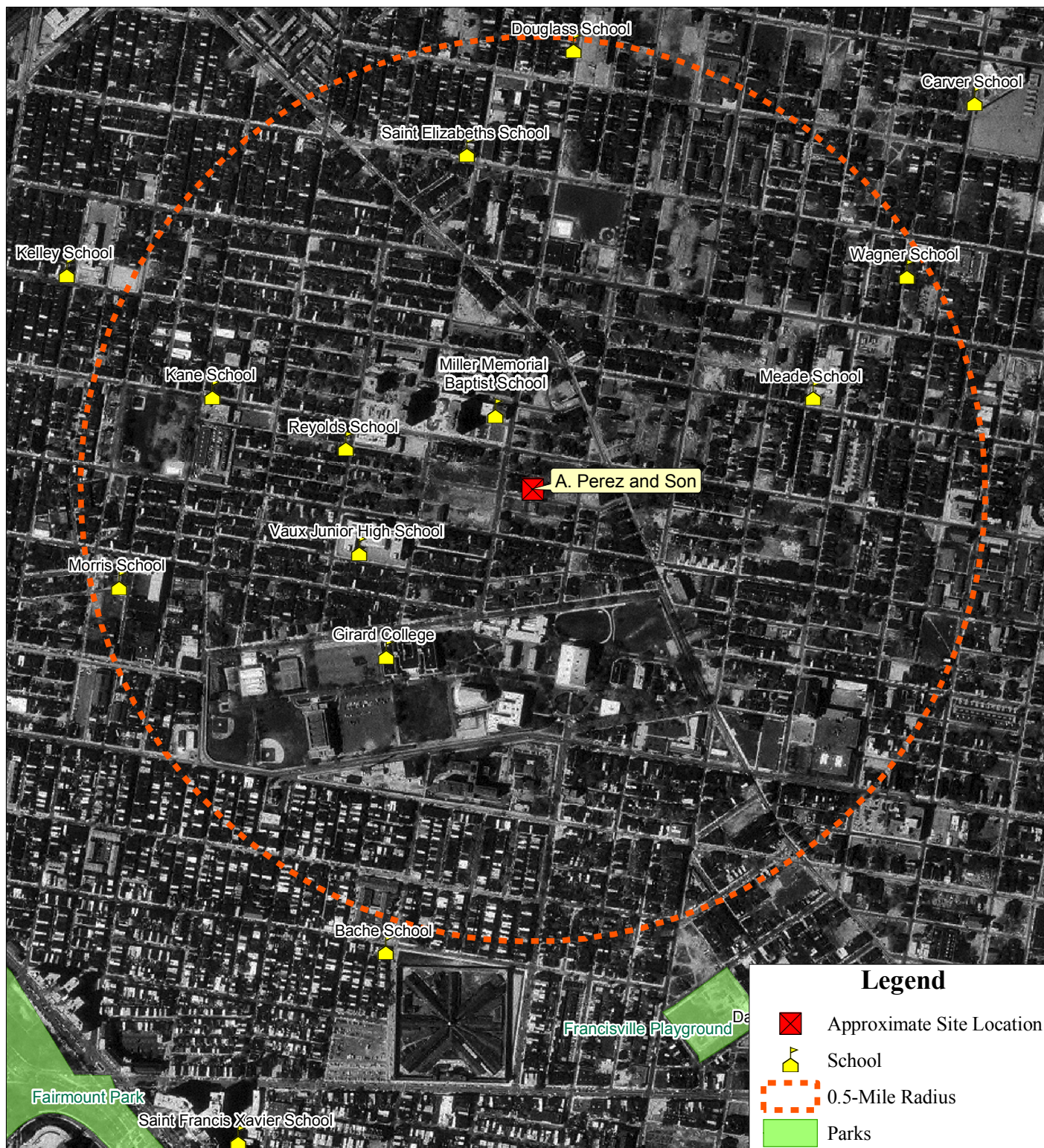
**Figure 1**  
Site Location Map

Source: Modified from USGS 7.5-Minute Series Topographic Quadrangle, Philadelphia, Pennsylvania, 1967, Revised 1994



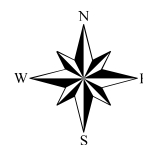
**TETRA TECH**





0 500 1,000  
 Feet  
 Scale in Feet

**A. Perez and Son**  
 1429 North 22nd Street  
 Philadelphia, Pennsylvania  
 Eckel Site No. 303

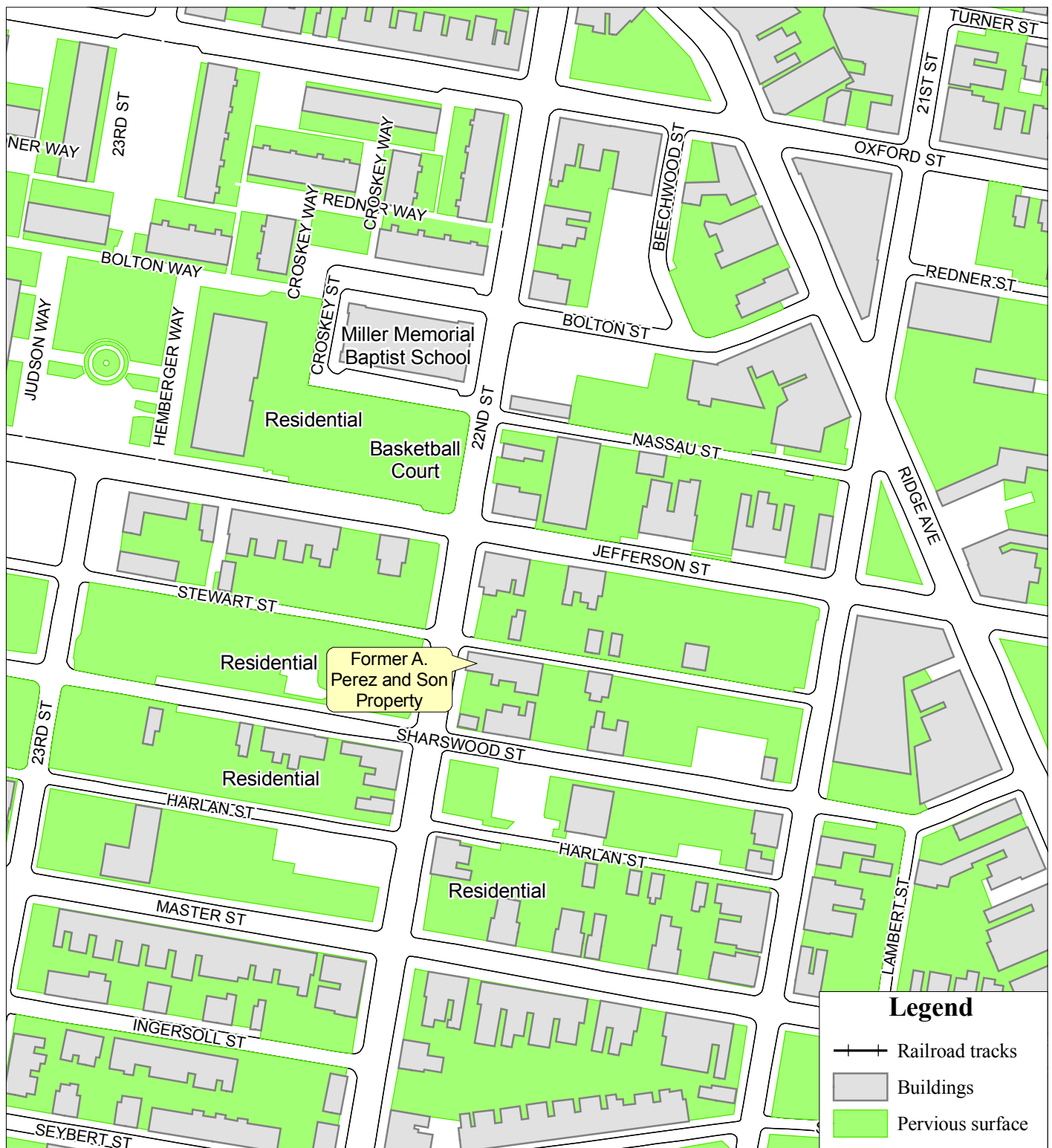


**Figure 2**  
 Aerial Photograph

Source: Modified from Digital Orthophoto (DOQQ) MrSID mosaic for Philadelphia Quadrangle (NAPP III, 1997-2001)







## **Appendix B**

### **Photographic Documentation**



## *Photographic Documentation*

**Site Name:** A. Perez and Son – Eckel Number 303

**Location:** 1429 North 22<sup>nd</sup> Street, Philadelphia, Pennsylvania

**Prepared by:** Tetra Tech EM Inc.

**Photographer:** [REDACTED]

### **Photograph No. 1**

**Photograph Date:**

October 13, 2005

**Description:** Facing south-southeast from the intersection of 22<sup>nd</sup> Street and Stewart Street toward the subject property.



### **Photograph No. 2**

**Photograph Date:**

October 13, 2005

**Description:** Empty lot between Stewart and Jefferson Streets, across from the former A. Perez and Sons property.







## *Photographic Documentation*

**Site Name:** A. Perez and Son – Eckel Number 303

**Location:** 1429 North 22<sup>nd</sup> Street, Philadelphia, Pennsylvania

**Prepared by:** Tetra Tech EM Inc.

**Photographer:** [REDACTED]

### **Photograph No. 3**

**Photograph Date:**

October 13, 2005

**Description:** Empty lot on west side of 22<sup>nd</sup> Street between Stewart and Jefferson Streets.



### **Photograph No. 4**

**Photograph Date:**

October 13, 2005

**Description:** Residential buildings on west side of 22<sup>nd</sup> Street between Sharswood and Stewart Streets across from the subject property.





## *Photographic Documentation*

**Site Name:** A. Perez and Son – Eckel Number 303

**Location:** 1429 North 22<sup>nd</sup> Street, Philadelphia, Pennsylvania

**Prepared by:** Tetra Tech EM Inc.

**Photographer:** [REDACTED]

### **Photograph No. 5**

**Photograph Date:**  
October 13, 2005

**Description:** View of vacant lot and residential buildings on 22<sup>nd</sup> Street.



### **Photograph No. 6**

**Photograph Date:**  
October 13, 2005

**Description:** View facing east down Sharswood Street from 22<sup>nd</sup> Street.







## *Photographic Documentation*

**Site Name:** A. Perez and Son – Eckel Number 303

**Location:** 1429 North 22<sup>nd</sup> Street, Philadelphia, Pennsylvania

**Prepared by:** Tetra Tech EM Inc.

**Photographer:** [REDACTED]

### **Photograph No. 7**

**Photograph Date:**  
October 13, 2005

**Description:** View facing west from Sharswood Street and 22<sup>nd</sup> Street



### **Photograph No. 8**

**Photograph Date:**  
October 13, 2005

**Description:** Facing northwest from Sharswood Road toward back side of former A. Perez and Son property.

